

Abstract:

A detented and damped hinge mechanism, with push-pull, and pull-push operation includes a first and second arms pivotally connected to move relative to one another in a scissor fashion between a closed and open positions. A cam and cam follower track establish a detent-type hold at both closed and open positions and add a radial motion component to the general pivotal motion. A damper limits relative movement of the arms. A biasing spring is utilized to bias the first and second arms toward the open position. A free moving anti-gravity ball moves in a channel when a momentum is imparted to the hinge mechanism. With the ball in its normal, lower position, arms are free to move; and moved to an upper position, the arms become locked out from full movement by the interference of the ball. Bumper materials are added.